Career Services Assignment 3 – Java Flash Cards

Points possible: 50

Category	Criteria	% of Grade
Completeness	All requirements of the assignment are complete.	100

Instructions: Research common Java interview questions online and create 20 flash cards from the information you find. Study your flash cards regularly to better prepare for interviews. Fill out the table below with the information you put on each of your flash cards.

Front of Card	Back of Card
What are the main concepts of OOP?	Abstraction, Encapsulation, Inheritance, Polymorphism
What is inheritance?	The process of a parent (super) class extending to another class in order to reuse code.
What is encapsulation?	Protects pieces of code from others to prevent the code from becoming broken. Increases code maintainability.
What is an interface?	A template that only has method declarations and not implementations. Multiple classes can implement an interface and the same class can implement multiple interfaces.
What is the main objective of garbage collection?	Frees up memory space occupied by the unnecessary and unreachable objects during execution by deleting them.
Explain access modifiers:	Predefined keywords that restrict the access of a class, method, constructor, and data in another class. Default, Private, Protected, Public
What is overloading?	Overloading is a phenomenon when two ore more methods or operators have the same representation. i.e., + operator adding two integers, but concatenating two strings.
Difference between array and arraylist:	The size of an array must be provided during its declaration and the index is required to add elements. An array list has a dynamic size and does not require the index to add new elements.
Types of exceptions in Java:	Checked exceptions – exceptions checked by the compiler through the use of try/catch blocks, or using the throws keyword.

	Unchecked exceptions – Not checked by the compiler
What are wrapper classes?	Wrapper classes convert Java primitives into objects.
Differentiate between == and equals():	Equals() is a method that compares content. == is an operator that compares addresses.
What is a singleton class?	A Singleton class is a class that only creates an object once.
What is the difference between program and process?	A program is a line of code written to accomplish a task, while a process is a program under execution.
What is a package?	A way of grouping a variety of classes and/or interfaces together in Java. Their functionality determines how they are grouped.
Why is Java a platform independent language?	It does not depend on any particular hardware or software because it is compiled and then converted to byte code, which can be run on multiple systems.
What is OOP?	A programming paradigm centered around objects rather than functions. Designed to overcome the flaws of procedural programming.
What is an Object?	An object is an instance of a class.
Differentiate between break and continue.	Break – used with loops and switch statements. Terminates the loop/switch block continue – used only with loops. Skips to the next iteration
What is a class?	A class is a collection of objects of similar data types.
What is a String Pool?	The collection of strings stored in the heap memory.